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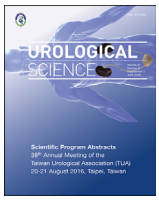

ISTUA Podium-1

Oncology

IPD01:

METFORMIN IMPROVE UPPER TRACT UROTHELIAL CARCINOMA SURVIVAL IN TAIWANESE PATIENTS WITH TYPE 2 DIABETES

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Purpose: The oral diabetes medicine metformin might have chemo-preventive effects against cancer which was discussed before. However, no clinical study exists for analyzing the effect of metformin in upper tract urothelial carcinoma survival condition in type 2 diabetes patients which presents an unusual feature in Taiwan. Therefore, we want to realize if metformin can improve survival rate in upper tract urothelial carcinoma patients through a population-based analysis.
Materials and Methods: The reimbursement databases of all Taiwanese patients with a newly diagnosis of upper tract urothelial carcinoma between 2003 and 2011 (n = 4418) were retrieved from the National Health Insurance. Then we just extract type 2 diabetes mellitus patients with more than two prescriptions diabetes mellitus drugs and delete only 1 prescription of metformin in prior 6 months (n = 826). We calculate hazard ratios by Cox regression for ever-users and never-users with SAS statistical method.
Results: Among 826 enrolled patients, there are 358 patients never using metformin and 468 ever take more than 2 prescription of metformin. 314 patients are male and 512 are female. The median survival time is 4.25 years for never using metformin and 6.97 years for ever-users and the difference is significant statistically. ($P = 0.0005$) We also assess subgroup of patients who received standard operation of nephroureterectomy and it also revealed metformin have better survival rate.
Conclusion: This study suggests that metformin use is associated with improving survival rate of upper tract urothelial carcinoma in patients with T2DM.

IPD02:

LONG-TERM RESULT OF TOTAL URETERECTOMY WITH ILEAL-URETERAL SUBSTITUTION IN THE TREATMENT OF URETERAL CANCER, A SINGLE-CENTER EXPERIENCE

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Purpose: In the treatment of ureteral urothelial carcinoma, renal-sparing procedures are of great importance for some well-selected patients. However, these procedures may carry risks of under-staging and may not be feasible in multifocal tumor. We performed total ureterectomy in order to achieve maximal resection of the pathological ureter, and repaired the ureteral defect with ileal-ureteral substitution.
Materials and Methods: We retrospectively reviewed the medical records of all patients who underwent total ureterectomy with ileal-ureteral substitution for ureteral urothelial carcinoma at our center from January 1988 through December 2015. Patient demographics, baseline renal function, disease etiology, surgical procedures, pathology reports, perioperative and long-term complications, long-term renal function, and the oncological outcome were recorded for analysis.
Results: A total of eight patients received total ureterectomy with ileal ureteral substitution with a mean follow up period of 81.8 months. Indications included solitary kidney, chronic kidney disease, and bilateral disease. The common perioperative complications were anastomotic urine leakage and temporary hemodialysis, and the long-term complication was mainly urinary tract infection. Preservation for renal functional was good, with only one deteriorated patient that need life-long hemodialysis. Only one patient (12.5%) experienced upper tract recurrence, and three patients (37.5%) had bladder recurrence during follow up. The 5-year recurrence free survival and cancer specific survival rate were 50% and 75%, respectively.
Conclusion: Total ureterectomy with ileal ureteral substitution is a feasible choice to treat ureteral UC when renal-sparing procedure is indicated. It provides good long-term oncological outcome over upper tract, and also preserves the renal function.

IPD03:

ASSOCIATION OF PREOPERATIVE PROTEINURIA WITH RENAL FUNCTIONAL OUTCOMES AFTER OPEN PARTIAL NEPHRECTOMY IN PATIENTS WITH AN ANATOMICALLY OR FUNCTIONALLY SOLITARY KIDNEY

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Purpose: Nephron-sparing surgery is required for patients with an anatomically or functionally solitary kidney, for postoperative renal function optimization. Open partial nephrectomy in the solitary kidney is associated with reliable, long-term renal function, preventing progression to dialysis. Therefore, we aimed to identify the preoperative factors associated with renal function decline after open partial nephrectomy.
Materials and Methods: Patients who underwent open partial nephrectomy for a renal tumor at our institution between 1986 and 2014, excluding those who underwent ex vivo partial nephrectomy, were retrospectively analyzed. Multivariate linear regression analysis was used to test associations of a postoperative decrease in the estimated glomerular filtration rate (eGFR) with perioperative conditions such as the preoperative eGFR, preoperative proteinuria, tumor size, and intraoperative renal ischemia time. Survival rates were analyzed using the Kaplan-Meier method and log-rank statistics.
Results: In total, 83 patients were included in this study; 5 were excluded. The median follow-up period for the remaining 78 patients was 34 months. The mean preoperative eGFR, tumor diameter, operative time, renal ischemic time, and estimated blood loss were 51±14 ml/min/1.73 m^2, 34±22 mm, 243±62 minutes, 41±22 minutes, and 355±333 ml, respectively. In 18 patients (23%), the postoperative eGFR was <30 ml/min/1.73 m^2 12 months after surgery. Only 1 patient needed chronic hemodialysis 12 months after surgery. On multivariate analysis, preoperative proteinuria (odds ratio [OR] 8.7, 95% confidence interval [CI] 1.6–58.8, P=0.01) and eGFR (OR 0.83, 95% CI 0.74–0.91, P=0.001) were significant predictors of a decrease in eGFR to <30 ml/min/1.73 m^2 after surgery. The probability of freedom from eGFR <30 ml/min/1.73 m^2 after 24 months